Graduate School of Public Health  
Department of Human Genetics  
HUGEN 2011 (1065 & 1100)  
Scientific Writing in Human Genetics  
Fall Term 2021

Section 1065: Fridays 1:30-2:30pm, A216 Public Health  
Section 1100: Fridays 9:00-9:55am, Online  
The instructor reserves the right to change the course schedule if necessary

Course Description

Writing and communication skills are amongst the most important assets for any human genetics researcher and/or public health genetics professional. The goal of this course is to provide a structured strategy for students to become comfortable with scientific writing. By facilitated discussions, reading and writing assignments/exercises, constructive peer-reviews by fellow students, advice from the instructor, and scientific reviews by the student’s advisor, Scientific Writing in Human Genetics is designed to empower Human Genetics students to establish the communication mindset to write clear and compelling scientific narratives in plain language. Further, the course encourages the students to utilize writing resources available on campus and online, improve their scientific writing skills, begin to write regularly, and complete a solid draft of the Background/Introduction and Specific Aims sections of their MPH essay, MS Thesis, or PhD research proposal/comprehensive exam document (and possibly, additional sections, including methods, results, or the entire document) or another academic work, such as their first manuscript (with permission of the instructor).

Course Goals

The goals of this course are to guide and enable the students to 1) explore and utilize the plethora of writing resources available on campus and via the internet, 2) establish the communication mindset to write productively, 3) learn the steps of writing using structured writing exercises, 4) hone their basic scientific writing skills to become better scientific writers, 5) become accustomed to writing daily, 6) provide constructive criticism to fellow students as peer reviewers to enhance everyone’s learning experience in a supportive and encouraging environment, and 7) complete a good, solid draft of the Background/Introduction and Specific Aims sections of their MPH essay, MS Thesis, or PhD research proposal/comprehensive exam document, and possibly additional sections (methods, results, or the entire document) or another academic work, such as their first manuscript (with permission of the instructor).

Contact Information

• F. Yesim Demirci, M.D., Instructor  
  Associate Professor of Human Genetics  
  fyd1@pitt.edu  
• 3133 Public Health  
• Office hours by appointment (email)  
• Office telephone: (412) 383-7193
**Learning Objectives**

Upon completion of this course students will be able to:

- Describe and utilize writing resources available at Pitt and on the internet.
- Create scientific documents using their improved scientific writing skills.
- Apply principles of the scientific narrative and plain language movements and effective punctuation, grammar, sentence, paragraph, and document design to written scientific documents.
- Exercise accepted methods for literature discussion, citing and quoting to written scientific documents, while avoiding plagiarism.
- Apply electronic resources, including EndNote and iThenticate, to written scientific documents.
- Learn and utilize the processes of smart revision by positive, constructive peer reviews of the documents by fellow students on their writing teams and by revising their own documents.
- Complete a good, solid draft of the Background/Introduction and Specific Aims sections with Literature Cited of the student’s MPH essay, MS Thesis, or PhD research proposal/comprehensive exam document, and possibly additional sections (methods, results, or the entire document) or another academic work, such as their first manuscript with permission of the instructor.

**Teaching Philosophy**

It is important for the students to know that the instructor is available to assist them in becoming comfortable and adept at scientific writing. Students should not hesitate to approach the instructor for assistance and guidance.

In this class, the instructor will not be critiquing the science or the writing. Your advisor is expected to critique the science, content, flow, and writing. Your advisor should be encouraging and helpful to you regarding your professional writing related to your academic work (i.e., essay, proposal, thesis, dissertation, and manuscripts). Your peers are expected to be encouraging/helpful as well, and critique the science if they can, but most importantly, the content and flow of the document. The instructor will review the peer-reviewers’ and advisors’ comments/critiques/edits and will make suggestions to the reviewers, if necessary.

This classroom and associated meetings are expected to be safe, welcoming, respectful, positive, and inclusive environments for learning and improving the writing and communication skills of all involved. Behavior that does not meet these standards on the part of the instructor, advisor or students should be brought to the attention of and discussed with the instructor.

**Health and Safety Statement**

During this pandemic, it is extremely important that you abide by the public health regulations, the University of Pittsburgh’s health standards and guidelines, and Pitt’s Health Rules. These rules have been developed to protect the health and safety of all of us. Universal face covering is required in all classrooms and in every building on campus, without exceptions, regardless of vaccination status. This means you must wear a face covering that properly covers your nose and mouth when you are in the classroom. If you do not comply, you will be asked to leave class. It is your responsibility to have the required face covering when entering a university building or classroom. For the most up-to-date information and guidance, please visit coronavirus.pitt.edu and check your Pitt email for updates before each class.
If you are required to isolate or quarantine, become sick, or are unable to come to class, contact me as soon as possible to discuss arrangements.

**Prerequisites**

The ability to write and use standard English language is required. Whether English is your first, second or third language, if you are not comfortable writing grammatically correct and properly punctuated English, an “ESL course” is recommended.

**Required Textbooks/Articles/Readings**

Lecture notes/slides, recommended and optional readings, assignments, and other course materials will be posted on the Canvas.

The required* textbook and supplemental reading books may be found at the Falk Library or purchased from a bookstore of choice, should the students find them particularly helpful to purchase for ongoing use.

Heard, Stephen B.

**Supplemental Readings/Bibliography**

Recommended reading over the first few weeks of class: Duke Graduate School Scientific Writing Resource (https://cgi.duke.edu/web/sciwriting/index.php?action=quicktips)
Extras Section on Smart Revising and the appended 7-step list are expected to be very helpful.

*Writing Science in Plain English*
Greene, Anne E.

*How to Write and Publish a Scientific Paper, 8th Edition*
Gastel, Barbara and Day, Robert A.
Available online for free through the Pitt Libraries/PittCat: https://pitt.primo.exlibrisgroup.com/discovery/fulldisplay?docid=alma9983722533406236&context=L&vid=01PITT_INST:01PITT_INST&lang=en&search_scope=MyInst_and_CI&adaptor=Local%20Search%20Engine&isFrbr=true

*Cite Right, Third Edition: A Quick Guide to Citation Styles--MLA, APA, Chicago, the Sciences, Professions, and More* (Chicago Guides to Writing, Editing, and Publishing)
Lipson, Charles
Falk Library: PN171.F56 L55 2018
The Canvas site will be used to post announcements, syllabus, slide presentations, homework assignments, and additional readings. Pitt Email will be used for submission of writing assignments to the advisor & instructor while OneDrive will be used for exchanging reviews/feedbacks in each peer-review group (group members & instructor).

**Canvas and OneDrive Instructions**

Class attendance and participation are strongly encouraged. Students are responsible for actively participating in the assigned peer review writing teams, which are seen as a tool for helping fellow classmates and improving their own writing in the process. Students are expected to use OneDrive for

**Required Software or Website Registration**

1) *EndNote* (or alternative literature citation program). Software is available for students as a no cost download at ‘https://software.pitt.edu’ and related training sessions can be found at the HSLS website (https://www.hsls.pitt.edu/instruction/class-catalog).

2) *iThenticate*. Students are required to register for iThenticate at the Pitt Office of Sponsored Programs website (https://www.osp.pitt.edu/ithenticate-form) and utilize it prior to submission of all final documents for this class (MPH essay, MS Thesis, or PhD research proposal/comprehensive exam documents or manuscript) to the instructor/advisor.

**Required or Recommended Equipment**

Computer (https://www.technology.pitt.edu/services/computer-purchasing-students) and internet access are required for accessing course materials, using online tools/resources, and completing assignments.

**Class Expectations/Behavior and Ground Rules**

Class attendance and participation are strongly encouraged. Students are responsible for actively participating in the assigned peer review writing teams, which are seen as a tool for helping fellow classmates and improving their own writing in the process. Students are expected to use OneDrive for
this purpose (a folder shared by peer-review group members & the instructor), set up a schedule for peer-review assignments, peer-review specific assigned documents of fellow students in their workgroup, write a critique of the document in terms of idea flow and content, and provide feedback to the reviewers as to whether their document was reviewed by the assigned group member, the strengths and weaknesses of the review, and whether the review was useful to the reviewed student. If reviews are less than useful, formal peer review writing group meetings will be instituted with the instructor to facilitate more constructive, useful reviews that enable productive smart revision.

It is essential that each student’s advisor(s) participate(s) in the activities of this class to the extent that they are expected to assist the student in formulating his/her project so that the student can complete a solid draft of the Background/Introduction and Specific Aims sections of his/her MPH essay, MS Thesis, and/or PhD research proposal/comprehensive exam document (and possibly, additional sections, including methods, results, or the entire document) or another academic work, such as his/her first manuscript. The advisors are expected to edit and critique the science, content, flow, and writing and work closely with their student(s), discussing their progress regularly. The students are expected to meet with their advisor(s) in preparation for writing Essay 2 about their project, but most importantly, for their first Writing Assignment version (WAv1), interim Writing Assignment version (WAv2) and final Writing Assignment version (WAv3). Advisors will edit and assist their student(s) in revising Essay 2 in preparation for evolving it into WAv1 and will critique and grade WAv1-3. Advisors are expected to email their grades to the instructor and their recommendations/comments/edits/critique to both their student(s) and the instructor in a timely manner (by the due dates) in order to continue the flow of the coursework. The purpose of involving the advisor is so that he or she maintains open lines of communications and makes certain that the student is on the right track towards his/her writing/research project and degree.

Students are expected to silence their cell phones (and keep their microphones muted during online sessions until ready to speak) and focus only on class activities (and avoid other/distracting activities). Class lectures/sessions may be recorded by the instructor and made available to the current students until the end of the course/term. Any other recording(s) will require special permission of the instructor.

The classroom and associated meetings are expected to be safe, welcoming, respectful, positive, supportive and inclusive environments for learning and improving the writing and communication skills of all involved. Behavior that does not meet these standards on the part of the instructor or students should be brought to the attention of and discussed with the instructor.

Copyright Notice

Course materials may be protected by copyright. United States copyright law, 14 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See Library of Congress Copyright Office and the University Copyright Policy.

Statement on Classroom Recording

To ensure the free and open discussion of ideas, students may not record or make copies of the classroom lectures, discussions and/or activities without prior approval of the instructor. Any such recording properly approved in advance can be used solely for the student’s own private use but may not be further copied, distributed, published, or otherwise used for any other purpose.
Tentative Grading Scale

90-100% A  
80-89% B  
70-79% C  
60-69% D  
< 60% F

Student Performance Evaluation (Assessments and Weights)

Weekly assigned readings in the recommended books/literature and homework assignments/exercises are designed to engage the students in learning-directed activities. Students are expected 1) to actively participate in class-related activities/discussions, 2) to demonstrate competency in learning from the assigned readings, using the provided resources, completing the assignments, and providing positive/constructive peer review & feedback to fellow students, and 3) to improve their writing skills. The assignments are expected to be handed in on time, and late assignments will be considered on an individual basis.

Iterations of a student’s draft of his/her academic work document and the final assignment will be assessed regularly by the student’s advisor and this assessment will constitute 40% of the final grade, based on the improvement in their document, avoidance of plagiarism, proper grammar, punctuation, integration and citation of the literature. Peer review writing groups are to be assigned by the instructor. Students may choose to have one person critique all of their writing assignments (WAv1-3) or may choose a rotation, so that each writing group member reviews each of the other writing group members over the term. Students are expected to provide their peer-reviews and feedbacks through the use of OneDrive, and these activities will constitute 20% of the final grade. Student’s overall active, positive, and timely participation in class-related activities will be graded by the instructor and constitute 40% of the grade.

Assignments and Descriptions

Assignments are described below and will be further explained in detailed instructions accompanying the weekly assignments on Canvas. Please try to keep up with the readings and assignments. This class requires a lot of effort that aims to benefit you in writing a good draft of the Background/Introduction and Specific Aims sections of your MPH essay, MS Thesis, or PhD research proposal/comprehensive exam document, and possibly additional sections (methods, results, or the entire document) or another academic work, such as your first manuscript (with permission of the instructor).

Schedule of Sessions and Assignments

**Week 1:** August 27 – Introduction to the Course; Introduction to Scientific Writing; Peer Review Writing Groups; Description of Weekly Assignments.

**Assignments** (for next class sessions on September 3 & 10):
• Make an appointment with (or correspond meaningfully and elicit a meaningful response from) your scientific writing advisor before Sept. 3 to be certain that he/she will participate as your scientific advisor/editor/grader in this course in collaboration with the instructor (further information will be sent to advisors once you have communicated with them and sent your confirmation email to the instructor).
• Essay 1 (due by Sept. 3): Introduce yourself to the instructor and class. Essay 1 does not need to be sent to your advisor(s) or peer-reviewed but be prepared to discuss it in class.
• Read “Introduction to Peer Review Writing Groups” and meet with your peer-review writing group to get to know each other. Each group must schedule the reviewer for each assignment (WA v1-3) for each group member. Upload the peer-review assignment calendar to OneDrive by Sept. 9.
• Additional Reading (over the first few weeks of class): Duke Graduate School Scientific Writing Resource, Extras Section on Smart Revising and the appended 7-step list are expected to be very helpful.
• Optional Readings: Writing Science in Plain English Chapters 1-2; How to Write and Publish a Scientific Paper, 8th Edition Chapters 1-3.

Week 2: September 3 – What is Scientific Writing? Science Needs a Story; Reading & Writing; Brief review of Pitt Resources; Discuss Essay 1.

Assignments (for next class sessions on September 10 & 17):
• Reading: The Scientist’s Guide to Writing Part II. (Writing) Behavior: Chapters 3-4.
• Use Essay 2 (below) as the writing project to do the exercise at the end of Chapter 4 in The Scientist’s Guide to Writing.
• Essay 2 (Email to Advisor(s) & Instructor and Upload to OneDrive by Sept. 17, 9 pm): Provide brief information on your essay, thesis, dissertation, or other academic work topic. Essay 2 does not need to be peer-reviewed.
• Review HSLS Resources & Classes. Keep up with the available short courses and take advantage of those that will be useful to you during your graduate study.
• Examine the website of the Pitt Writing Center and learn what resources are available.
• Examine citations and references and the Instructions for Authors related to citations in your favorite journal(s).
• Using your knowledge from these readings, collect and read six reference papers (articles from the literature) that you intend to or might cite in your dissertation, thesis, or essay. Submit the citation and abstract of each of these six papers along with your Essay 2.

Week 3: September 10 – Writing Behavior; Your Writing Assignment: The Introduction/Background Material for your MPH Essay, MS Thesis, or Doctoral Dissertation (or other academic work approved by instructor); Discuss your progress in reading and citing the scientific literature.

Assignments (for next class session on September 17):
• Reading: The Scientist’s Guide to Writing Chapters 15, 25 & 27.
• Watch and be prepared to discuss the following webinar: 10 tips for writing a truly terrible journal article (https://www.youtube.com/watch?v=H7urmBjQgG4).
• Set up EndNote (available at https://software.pitt.edu).
• Register for iThenticate through Pitt (https://www.osp.pitt.edu/ithenticate-form).
• Continue working on your WA# preparations; Keep reading and taking notes from the articles (in your own words).

**Week 4:** September 17 – Principles of Literature Citing; Quoting; Avoiding Plagiarism; Electronic Resources: EndNote, iThenticate; Discuss Assignments.

**Assignments** (for next class session on September 24):
- Reading: *The Scientist’s Guide to Writing* Chapters 5, 6, 7 & 21.
- Examine citations & references and related Instructions for Authors in your favorite journal(s).
- Optional Readings: *Cite Right* Chapters 1-2 & 7-8; *How to Write ..., 8th Ed.* Chapters 30-35.
- Based on what you have learned from the readings in the past weeks, do exercise 1 at the end of Chapter 6, while rewriting and improving Essay 2 about your MPH Essay, MS Thesis, or Doctoral Dissertation (or other academic work approved by the instructor). Upload revised Essay 2 to OneDrive by Sept. 23 and be prepared to discuss what you learned during revision of Essay 2.

**Week 5:** September 24 – Writing Behavior Part 2; Discuss Assignments.

**Assignments** (for next class session on October 1):
- Additional Readings: *Articles/Examples posted on Canvas*.
- Download/use the ETD template while you start working on your Writing Assignment v1 (WAv1), the first outline and beginning draft of the Introduction/Background and Specific Aims sections of your MPH essay, MS Thesis, or PhD research proposal/comprehensive exam document (Email to Advisor(s) & Instructor and Upload to OneDrive by Thursday Sept. 30, 9 pm).

**Week 6:** October 1 – Reading and Writing; Proper Citing; Discuss Assignments.

**Assignments** (for next class session on October 8):
- Please remind your scientific writing advisor to review and critique your WAv1 and email his/her recommendations to both you and the instructor by Oct. 7.
- The peer-review person will write a review and provide it to you (by Oct. 7 via OneDrive), and you will write and return your feedback to the reviewer (by Oct. 12 via OneDrive).
- Additional Readings: *Articles/Examples posted on Canvas*.

**Week 7:** October 8 – Reading and Writing; Revisions; Discuss Assignments.

**Assignments** (for next class session on October 29):
- Optional Reading: *Writing Science in Plain English* Chapters 5-7.
• **WAv2** is due by Thursday Oct. 28 (Email to Advisor(s) & Instructor and Upload to OneDrive by 9 pm). Continue reviewing the Literature and writing/revising the Introduction/Background/Specific Aims sections of your MPH essay/MS thesis/PhD research proposal/comprehensive exam document.

**Week 8**: October 15 – No class (Fall break)

**Week 9**: October 22 – No lecture (ASHG meeting)

**Week 10**: October 29 – Revisions; Review & Response; Discuss Assignments.

**Assignments** (for next class sessions on November 5 & 12):
- Please remind your scientific writing advisor to review and critique your WAv2 and email his/her recommendations to both you and the instructor by Nov. 9.
- The peer-review person will write a review and provide it to you (by Nov. 9 via OneDrive), and you will write and return your feedback to the reviewer (by Nov. 11 via OneDrive).
- Optional Reading: *Writing Science in Plain English* Chapters 5-7.

**Week 11**: November 5 – Writing Style; Plain Language; Tell a Story; Choose Words Carefully; Discuss Assignments.

**Assignments** (for next class session on November 12):
- Optional Reading: *Writing Science in Plain English* Chapters 8-11.
- Be prepared to discuss problems related to progress on your document, reviews, etc.

**Week 12**: November 12 – Paragraphs; Sentences; Words; Discuss Assignments.

**Assignments** (for next class sessions on November 19 and December 3):
- Optional Readings: *How to Write …, 8th Ed.* Pages 70-71 & 121-122; *Eats, Shoots & Leaves* book (educational and entertaining).
- **WAv3** is due by 12/02/21. Using the strategies learned earlier on Writing Behavior, Writing & Revising, Literature review & Citing, continue to edit/update the Introduction/Background/Specific Aims sections of your MPH essay/MS thesis/PhD research proposal/comprehensive exam document.

**Week 13**: November 19 – Punctuation; Spelling & Grammatical Errors; Discuss Assignments.

**Assignments** (for next class session on December 3):
- Additional Readings: *Selected articles on publishing/publishers (on Canvas).*
- Optional Reading: *How to Write …, 8th Ed.* Chapters 4-6.
- **Final Writing Assignment (WAv3)** is due by Thursday Dec. 2 (Email to Advisor(s) & Instructor and Upload to OneDrive by 9pm). A good, solid draft of the Background/Introduction and Specific Aims sections of the student’s MPH essay, MS Thesis, or PhD research proposal/comprehensive exam document, and possibly additional sections.
(methods, results, or the entire document) or another academic work with permission of the instructor. Don't forget to run the paper through iThenticate and email the full report (as a pdf file) to the instructor.

**Week 14:** November 26 – No class (Thanksgiving recess)

**Week 15:** December 3 – Authorship; Choose Journals Carefully; Legitimate vs. Predatory Journals; Discuss Assignments.

**Assignments (for next class sessions on December 10 & 17):**
- Please remind your scientific writing advisor to review and critique your WA v3 and email his/her recommendations to both you and the instructor by Dec. 14.
- The peer-review person will write a review and provide it to you (by Dec. 14 via OneDrive), and you will write and return your feedback to the reviewer (by Dec. 16 via OneDrive).
- Reading: *The Scientist’s Guide to Writing* Chapters 9-12.

**Week 16:** December 10 – Front Matter; Title; Abstract; Materials and Methods; Discuss Assignments.

**Assignments (for next class session on December 17):**
- Continue revising and improving your document, not for this course, but for YOURSELF!!! You can do it!

**Week 17:** December 17 – Results; Discussion/Conclusion; Tables and Figures; Back Matter; Wrap-up.

**Accommodation for Students with Disabilities**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 as early as possible in the term.

**Academic Integrity**

All students are expected to adhere to the school’s standards of academic honesty. Cheating/plagiarism will not be tolerated. The Graduate School of Public Health’s policy on academic integrity, which is based on the University policy, is available online in the Pitt Public Health Academic Handbook [www.publichealth.pitt.edu/home/academics/academic-requirements](http://www.publichealth.pitt.edu/home/academics/academic-requirements). The policy includes obligations for faculty and students, procedures for adjudicating violations, and other critical information. Please take the time to read this policy.

**Diversity and Inclusion**

The University of Pittsburgh Graduate School of Public Health considers the diversity of its students, faculty, and staff to be a strength and critical to its educational mission. Pitt Public Health is committed to creating and fostering inclusive learning environments that value human dignity and equity and promote social justice. Every member of our community is expected to be respectful of the individual perspectives, experiences, behaviors, worldviews, and backgrounds of others. While intellectual disagreement may be constructive, no derogatory statements, or demeaning or discriminatory behavior
Sexual Misconduct, Required Reporting and Title IX Statement

The University is committed to combatting sexual misconduct. As a result, you should know that University faculty and staff members are required to report any instances of sexual misconduct, including harassment and sexual violence, to the University’s Title IX office so that the victim may be provided appropriate resources and support options. What this means is that as your professor, I am required to report any incidents of sexual misconduct that are directly reported to me, or of which I am somehow made aware.

There are two important exceptions to this requirement about which you should be aware:

A list of the designated University employees who, as counselors and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: https://www.diversity.pitt.edu/civil-rights-title-ix/make-report/report-form

An important exception to the reporting requirement exists for academic work. Disclosures about sexual misconduct that are shared as part of an academic project, classroom discussion, or course assignment, are not required to be disclosed to the University’s Title IX office.

If you are the victim of sexual misconduct, Pitt encourages you to reach out to these resources:

- Title IX Office: 412-648-7860
- SHARE @ the University Counseling Center: 412-648-7930 (8:30 A.M. TO 5 P.M. M-F) and 412-648-7856 (AFTER BUSINESS HOURS)

If you have a safety concern, please contact the University of Pittsburgh Police, 412-624-2121.

Other reporting information is available here: https://www.diversity.pitt.edu/civil-rights-title-ix-compliance/make-report

Health Sciences Library and Pitt Public Health Librarian

Health Sciences Library (www.hsls.pitt.edu) resources are essential educational tools for this course. Pitt Public Health’s dedicated librarian (Helena VonVille - https://www.hsls.pitt.edu/staff/helena-vonville) can assist students with library resources and literature searching. Please also avail yourself of library training courses, including Basic EndNote, Advanced EndNote, Painless PubMed, Advanced PubMed and others (https://www.hsls.pitt.edu/instruction/class-catalog).

University Writing Center

The students will be introduced to the writing center on campus (www.writingcenter.pitt.edu) early in the course and are expected to utilize the services as needed or recommended by the instructor.